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EXAMINER	
ALAWADI, SARAH	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/579,512	HARRISON ET AL.	
	Examiner	Art Unit	
	SARAH AL-AWADI	1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *76-98* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *76-98* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The **FINALITY** of the previous Office Action is hereby **WITHDRAWN** in order to apply the New Grounds of Rejection set forth below.

WITHDRAWN REJECTIONS

Claims 76-80 and 81-83, 86-87, and 93-94 are rejected under 35 U.S.C. 102(b) as being anticipated by Dederen et al. US 2002/0065328 as evidenced by Sharma et al. Food Promotion Chronicle and Wikipedia (Dimethicone). Said rejection is hereby **withdrawn.**

Claims 84-85 88 89-92 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dederen et al. US 2002/ 0065328 with respect to claims 76 and 86 as presented above. Said rejection is herby **withdrawn .**

Claims 95-97are rejected under 35 U.S.C. 103(a) as being unpatentable over Dederen et al., United States Patent Application 2002/0065328 with respect to claim 76 as presented above, further in view of Bavouzet et al. United States Patent Application 2005/0053569. Said rejection is hereby **withdrawn.**

NEW REJECTIONS

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 76-80 and 81-83, 86-87, and 93-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dederen et al, US 2002/ 0065328 and Teng et al. United States Patent Application, 2003/0040497 as evidenced by Sharma et al., Food Promotion Chronicle, and Wikipedia (Dimethicione). (See 892)

Regarding claim 76, Dederen et al. teach two types of multiple emulsions; a water in oil in water, and an oil in water in oil emulsion. Dederen et al. teach examples of multiple emulsions that have a liquid phase and an aqueous phase (paragraph 0075) with a polysaccharide stabilizer dispersed in water such as xanthan and polyglucomannan polysaccharides. (paragraph 0012 and

0078) Dederen et al. teaches that the polysaccharides are made of glucose and glucuronic acid monomer units, and do not have polyorganosiloxane groups. (paragraph 010) Furthermore Dederen et al. teaches that the emulsion stabilizer components can be blended to produce a dry formulation (solid form) that can be dispersed in water. (paragraph 0086) With regard to the limitation(s) recited in claim 46 which state that the polysaccharides have a mean degree of polymerization (DP) that is at least 1.5, preferably 20, and most particularly at least 100, and the Brookfield viscosity at 25 degrees Celsius as a solution at 1% by mass in water is less than 20,000 mPa.s and optionally ranging from 1 to 4500 mPa.s,; until some material difference(s) in the properties of the composition are demonstrated, said limitation is considered by the Examiner to be directed toward the multiple emulsion system which is instantly claimed. (see table in paragraph 0046 for components)

Dederen et al. does not expressly teach wherein the water-soluble or water dispersible stabilizer is at the interface of the two phases (between the continuous liquid or meltable hydrophobic phase and the aqueous dispersed phase).

Teng et al. teach emulsions wherein hydrocolloids including polysaccharides which disperse or swell in water stabilize emulsions by forming strong interfacial films around the dispersed-phase droplets and increase the viscosity of the external phase see paragraph 0107, 0112 and 0118.The stabilizers of Teng may be incorporated into either phase of the emulsion, see paragraph 0108.

It would have been prima facie obvious to one of ordinary skill in the art to incorporate the polysaccharides of Dederen at the interface of the internal phase of the emulsion. One would have been motivated to do so in order to stabilize the emulsion further by forming an interfacial

film. Furthermore, the prior art exemplifies that polysaccharide stabilizers can be incorporated into either phase of the emulsion.

Regarding claim 77-80, Dederen et al. teaches that the oil phase can include that of silicone oils such as dimethicione. Dimethicione is a type of branched organosilicon material that is an example of silicon oil. (paragraph 0038) Regarding claim 80, Dederen et al. teaches dimethicione as the oil used. (discussed above) Dimethicione is an example of a nonionic polyorganosiloxane. (see wikipedia website of dimethicione) Claim 81 recites the emulsion as claimed in claim 81wherein said polysaccharide (PSA) or its skeleton is a liner or branched, nonionic or ionic homopolysaccharide or heteropolysaccharide, having identical or different glycosyl units linked via β(1-4) bonds, and optionally β(1-3) and/or β(1-6) bonds. Dederen et al. teaches an example of a polysaccharide such as xanthan gum which is an anionic polysaccharide having glycosyl units consisting of two D-glucopyranosyl units, two D-mannopyranosyl units and one D-glucopyranosylurionic acid. As evidenced by Sharma et al. the polymer backbone of xanthan is made up of β(1-4) linked B-D-glucopyranosyl units. (Sharma et al on 892 form, figure 1) Claim 82 recites the emulsion of claim 81 wherein the hydroxyl functions of the glycosyl units are substituted and/or modified with nonionic or ionic groups other than lipophilic polyorganosiloxane groups. Dederen et al. teaches an embodiment of xanthan gum as the polysaccharide. Sharma et al. discloses the structure of xanthan gum and it is shown that xanthan gum has nonionic glycosyl units that are substituted and/or modified by groups other than lipophilic polyorganosiloxane groups. (see Sharma et al. on 892 form, figure 1) Claim 83 recites the emulsion as claimed in claim 81 wherein said polysaccharide is selected from a group which can include that of depolymerized galactomannans. Dederen et al. teaches that other than

xanthan gum, a polysaccharide such as guar gum can be used. (paragraph 0015) Guar gum is a single polysaccharide and Dederen teaches an embodiment of guar gum used alone, not polymerized with other polysaccharides. Regarding claims 86-87 Dederen et al. teaches amphiphilic non-ionic polymers such as xanthan gum. Regarding claim 93, Dederen et al. teaches multiple emulsions such as oil in water in oil, and water in oil in water emulsions. (paragraph 0075) Thus Dederen et al. teaches where the outer phase is aqueous such as water.

Claim 94 recites the emulsion of claim 76 wherein the outer phase is an alcoholic or aqueous-alcoholic phase, optionally comprising isopropanol or ethanol or mixtures. Dederen et al. teaches that the aqueous phase (water phase) can include fatty alcohols. (paragraph 0042) Thus, Dederen et al. teaches an embodiment with an aqueous alcohol phase.

Regarding claims 84 and 76, Dederen et al. teaches that the oil phase (hydrophobic phase) can contain 30% by weight, and that water can be present up to a 100%. (see paragraph 0046) The ranges disclosed in Dederen overlap the ranges claimed for the instant application as it is possible to form ratios of 62/30 of aqueous phase (water) to hydrophobic (oil) phase. (see the ranges for the preferred non-alkoxide emulsifiers in the table shown in paragraph 0046) Furthermore, absent evidence of criticality , since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition. MPEP 2144.05 recites "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization."

Regarding claim 85, Dederen et al. teaches that the oil phase (hydrophobic phase) can contain 30% by weight. (paragraph 0046) Dederen also teaches that the polysaccharide combinations (stabilizer) can be present at a percent range from 0.25 to 7% weight. (paragraph 0046) Thus Dederen et al. teaches ranges that overlap with the instant invention. Furthermore, absent evidence of criticality , since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust

the amount of each parameter in the composition. MPEP 2144.05 recites "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization."

Regarding claims 86 and 88, Dederen et al. teaches amphiphilic non-ionic polymers such as xanthan gum. Dederen further teaches that these polymers can be present in the composition in an amount of 3 to 8 parts by weight. (see paragraph 0088) Furthermore, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust the weight ratio of each parameter in the composition. MPEP 2144.05 recites "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization."

Claim 89 recites the emulsion as claimed in claim 86 wherein the hydrophilic polymer is made of or comprises at least one water-soluble or water-dispersible polysaccharide. (PSA) As discussed above xanthan is a water soluble polysaccharide which is an example of a hydrophilic polymer that Dederen uses for the emulsions. (see above)

Regarding claim 90, Dederen teaches water in oil in water emulsions as discussed above, and oil in water in oil emulsions. Thus Dederen teaches a combination having an inverse emulsion of continuous liquid, an aqueous dispersed phase, water soluble or dispersible stabilizer, and an aqueous or water-miscible outer phase which is dispersed with the inner emulsion by means of at least one dispersant and/or stabilizer. Dederen et al. teaches that the oil phase (hydrophobic phase) can contain 30% by weight. (paragraph 0046) Dederen also teaches that the polysaccharide combinations (stabilizer) can be present at a percent range from 0.25% to

7% weight. (paragraph 0046) Thus Dederen et al. teaches ranges that overlap with the instant invention. Furthermore, absent evidence of criticality , since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust the ratio of each parameter in the composition. MPEP 2144.045recites "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization."

Regarding claim 91, as shown above, Dederen teaches that the emulsion can contain a solid matrix by drying. Furthermore, Dederen et al. teaches that the oil phase (hydrophobic phase) can contain 30% by weight. (paragraph 0046) Dederen also teaches that the polysaccharide combinations (stabilizer) can be present at a percent range from 0.25 to 7% weight. (paragraph 0046) Thus Dederen et al. teaches ranges that overlap with the instant invention. Furthermore, absent evidence of criticality, since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition. MPEP 2144.04 recites "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization

Regarding claim 92, the table in paragraph 0046 demonstrates that the stabilizer can be present in the composition in a range from 0.25 to 7 wt % which overlaps the instant claimed range. Furthermore, absent evidence of criticality, since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the

composition and adjust the weight percent of each parameter in the composition. MPEP 2144.05 recites "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization.

Regarding claim 98, Dederen et al. teaches the use of emollients such as coconut oil which can be solid at ambient temperature. Coconut oil is made up of one ethyleneically unsaturated nonionic monomer. (paragraph 0037-38) Claim 72 also recites that the solid matrix can be made of materials such as water-dispersible saccharides or fatty acids. Dederen et al. teaches that the emulsifier and emulsion stabilizer components can be combined to provide a dry formulation that can be dispersed in water. An example of the stabilizer can include that of xanthan gum (a saccharide). (stated supra) The emulsifier can include fatty acid esters. (paragraph 0020) Thus a solid (dry) matrix can be made from the embodiments presented in Dederen et al.

Claims 95-97are rejected under 35 U.S.C. 103(a) as being unpatentable over Dederen et al., United States Patent Application 2002/0065328 and Teng et al. United States Patent Application, 2003/0040497with respect to claim 76 as presented above, further in view of Bavouzet et al. United States Patent Application 2005/0053569.

The combined teachings of Dederen et al. and Teng et al. do not expressly teach the hydrophobic phase is a care or detergence agent for articles made of textile fibers, and the outer phase is an aqueous liquid rinsing agent (claim 95 and 97) or a non aqueous liquid detergent formulation (claim 96).

Bavouzet et al. teaches multiple emulsions for the use of detergents. (paragraph 008)The outer phase can consist of a surfactant and stabilizing polymer. (paragraph 0403) Bavouzet also teaches that the outer phase can contain sodium dodecyl sulfate. (paragraph 0464-0465)The emulsions of the invention represent detergent formulations for washing textile fibers or as compositions for the care of skin and hair. (paragraph 0426 and 0217)

Regarding claim 96; absent evidence to the contrary the Examiner interprets detergents such as SDS described above to be both non aqueous and aqueous as it is well known in the art that detergents have amphiphilic properties. Bavouzet et al. teaches that the multiple emulsions can have in inner organic phase being dispersed in the aqueous phase or an inner aqueous phase dispersed in the organic phase then dispersed in the aqueous phase. Furthermore, Bavouzet et al. teaches that the active materials can be in the form of a solid dispersed phase. (paragraph 0159)

It would have been obvious to the skilled artisan to use a detergent or care articles with both aqueous and non aqueous outer phases because Bavouzet et al. teaches multiple detergent or care emulsions wherein the outer phase is aqueous. Dederen teaches multiple emulsions with aqueous and non aqueous outer phases and Bavouzet teaches that emulsions with similar properties including aqueous outer phases can contain detergent or care formulations.

RESPONSE TO REMARKS

Applicants argue that the stabilizer of Dederen is not located at the interface but rather the stabilizer is located in the water phase of the primary outermost emulsion corresponding to figure one.

In response, Applicants remarks are considered moot in view of the new grounds of rejections presented above. Teng et al. teach that it is obvious to one of ordinary skill in the art to place a stabilizer in any phase in order to effectively stabilize an emulsion. For example, Teng al. teach emulsions wherein hydrocolloids including polysaccharides which disperse or swell in water stabilize emulsions by forming strong interfacial films around the dispersed-phase droplets and increase the viscosity of the external phase see paragraph 0107, 0112 and 0118.The stabilizers of Teng may be incorporated into either phase of the emulsion, see paragraph 0108. It would have been prima facie obvious to one of ordinary skill in the art to incorporate the polysaccharides of Dederen at the interface of the internal phase of the emulsion. One would have been motivated to do so in order to stabilize the emulsion further by forming an interfacial film. Furthermore, the prior art exemplifies that polysaccharide stabilizers can be incorporated into either phase of the emulsion.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Al-Awadi whose telephone number is (571) 270-7678. The examiner can normally be reached on 9:30 am - 6:00 pm; M-F (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bonnie Eyler can be reached on (571) 272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SARAH AL-AWADI/
Examiner, Art Unit 1619

/Shanon A. Foley/
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